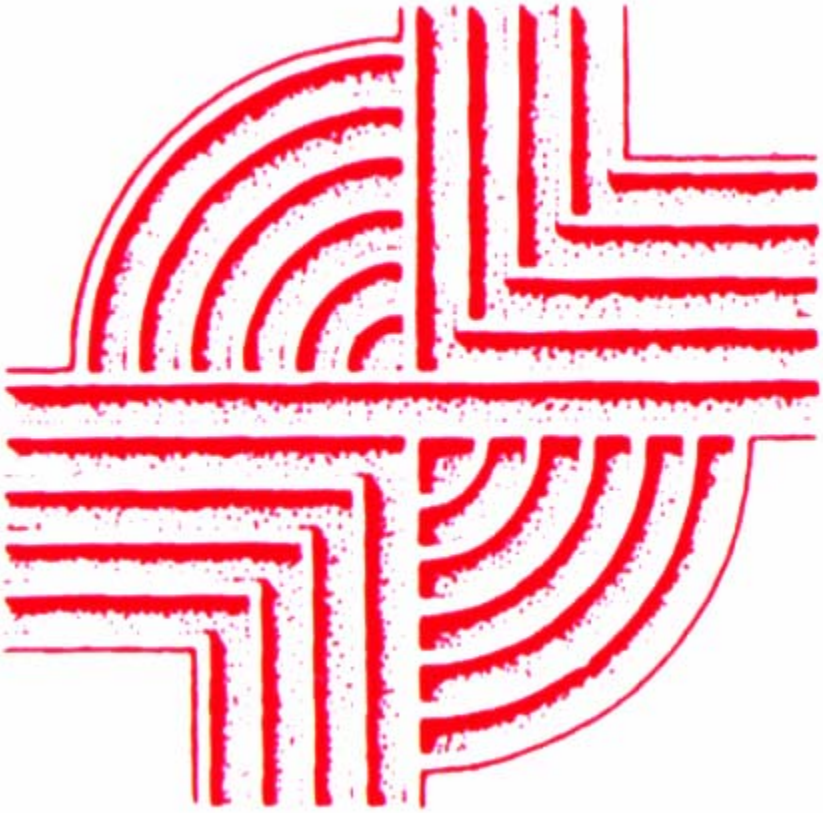
CULTURAL RESOURCES SURVEY OF THE BEES CREEK 115kV TRANSMISSION PROJECT, JASPER COUNTY, SOUTH CAROLINA



CHICORA RESEARCH CONTRIBUTION 417

CULTURAL RESOURCES SURVEY OF THE BEES CREEK 115kV TRANSMISSION PROJECT, JASPER COUNTY, SOUTH CAROLINA

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ABSTRACT

This study reports on an intensive cultural resources survey of an approximately 6 mile corridor located in eastern Jasper County, South Carolina. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The corridor is to be used by Central Electric Power Cooperative, Inc. for the construction of a 115kV transmission line. The substation lot associated with the line had been previously surveyed and construction was completed at the time of this survey (Trinkley 2002). The survey corridor is situated northeast of Ridgeland between an existing transmission line and S-462. The corridor consists of areas mixed pines and hardwoods, planted pines, swamp, and fallow field.

This survey was conducted to identify and assess archaeological and historical sites that may be in the project area. For this study an area of potential effect (APE) 0.5 mile around the proposed corridor was assumed. The proposed undertaking will require clearing of the corridor, followed by construction of the poles (80 feet in height or less). These activities have the potential to affect archaeological and historical sites in the area.

Consultation with the S.C. Department of Archives and History GIS revealed no properties in or near the project area that have been determined eligible for the National Register of Historic Places. However, an architectural and historical survey of sites that was performed in 1995-96 identified one resource, 109-0293, within the APE (Harvey and Poplin 1996). Site 109-0293 is a ca. 1900 house which was determined not eligible in the 1996 survey.

An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology identified one archaeological site, 38JA320, within a 0.5 mile area of potential effect (APE). The site consists of two dikes that were recommended not eligible for the National Register.

The archaeological survey of the corridor incorporated shovel testing at 100-foot intervals along the center of the 75 foot right-of-way with the corridor starting at the southwest at an existing transmission line and running northeast to an existing substation. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 319 shovel tests were excavated along the corridor.

As a result of these investigations one site, 38JA326 was recorded**.** The site is a prehistoric lithic and pottery scatter that is recommended not eligible for the National Register of Historic Places.

A survey of public roads within 0.5 mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50 years old that also retained their integrity. The previously identified house, 109-0293, is still recommended not eligible for the National Register. The house cannot be seen from the corridor and will not be affected by the proposed transmission line. No additional structures were found within the APE that contained enough integrity to be eligible for the National Register of Historic Places.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy L. Jackson of Central Electric Power Cooperative. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 6 mile corridor to be used for the Bees Creek 115kV Transmission Line in eastern Jasper County (Figure 1). The project runs approximately north-south between an existing transmission line and S-462.

The proposed corridor, as previously mentioned, is intended to be used as a transmission line. Landscape alteration, primarily clearing, and construction, including erection of poles, will damage the ground surface and any archaeological resources that may be present in the survey area.

Construction and maintenance of the transmission line may also have an impact on historic resources in the project area. The project will not directly affect any historic structures (since none are located on the survey corridor), but the completed facility may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. As a result, this architectural survey uses an area of potential effect (APE) about 0.5 mile radius around the proposed survey corridor.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Jasper County.

We were requested by Mr. Tommy L. Jackson of Central Electric Power Cooperative to conduct a cultural resources survey for the project on July 12, 2004.

These investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work, one archaeological site (38JA320) was found within a 0.5 mile area of potential effect (APE). The site is a series of dikes recorded during a 2003 survey (Trinkley and Southerland 2003). They were recommended not eligible for the National Register of Historic Places.

The South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. No properties in or near the project area have been determined eligible for the National Register of Historic Places. However, an architectural and historical survey of sites that was performed in 1995-96, identified one resource, 109-0293, within the APE (Harvey and Poplin 1996). Structure 109-0293 is a ca. 1900 house that was determined not eligible in the 1996 survey.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted from September 1-3 by Mr. Tom Covington, Ms. Katherine Morse, and Ms. Julie Poppell under the direction of Dr. Michael Trinkley and revealed one archaeological site 38JA326. The site, a prehistoric lithic and pottery scatter, is recommended not eligible for the National Register of Historic Places.

The architectural survey of the APE, designed to identify any structures over 50 years

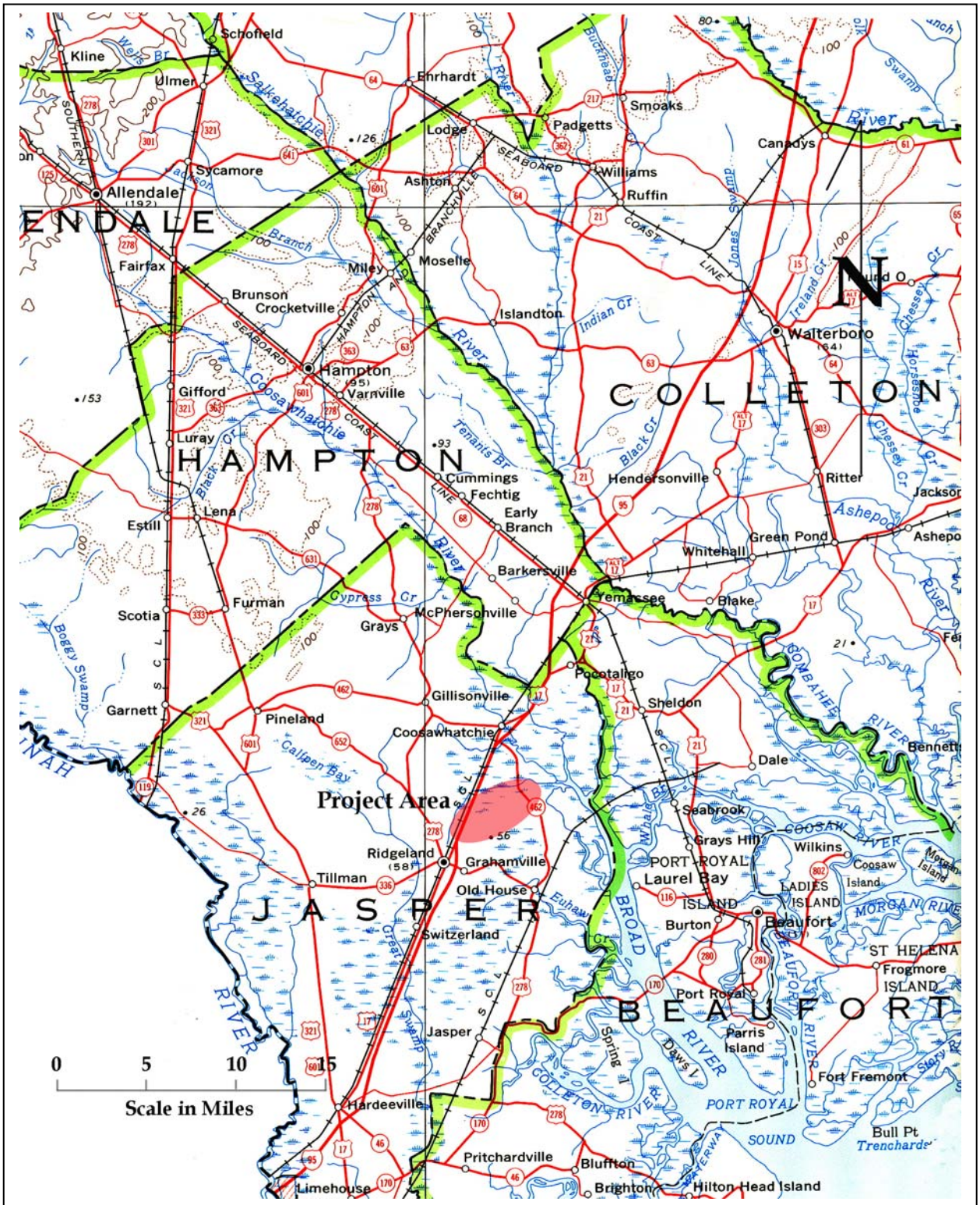

Figure 1. Project vicinity in Jasper County (basemap is USGS South Carolina 1:500,000).

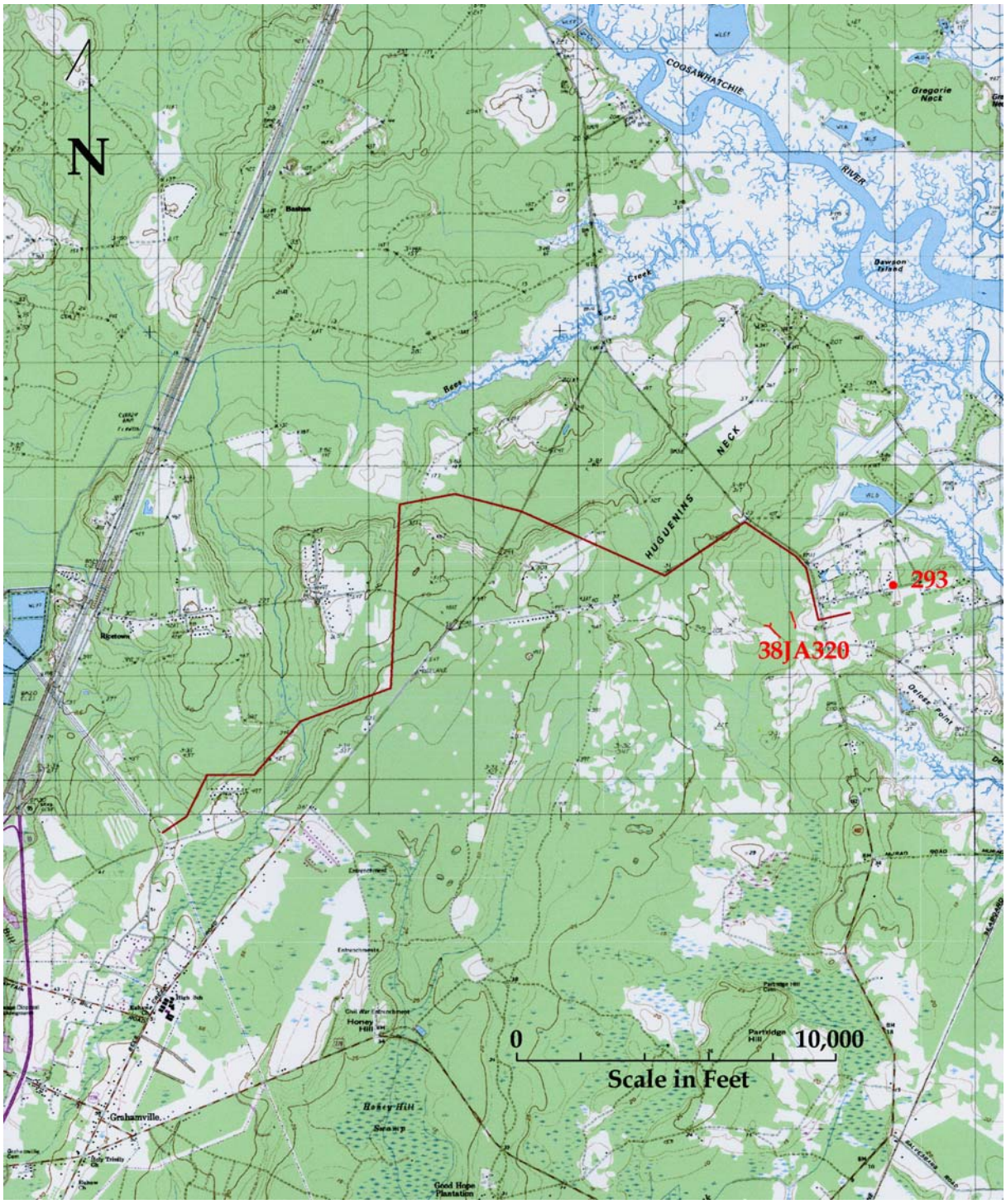

Figure 2. Project corridor and previously identified archaeological and architectural site (basemap is USGS Coosawhatchie 7.5').

in age that retain their integrity and were potentially eligible for the National Register of Historic Places revealed no such structures. The identified house from the 1996 survey is still recommended not eligible. The structure cannot be seen from the transmission line and will not be affected.

Report production was conducted at Chicora's laboratories in Columbia, South Carolina from September 3-7, 2004. The only photographic materials associated with this project are color prints, which are not archival. Chicora Foundation retains the negatives and prints for these photographs.

NATURAL ENVIRONMENT

Physiography

Jasper County is located in the lower Atlantic Coastal Plain of South Carolina and is bounded to the west by the Savannah River, to the south by the Savannah River and the Atlantic Ocean, to the east by Beaufort and Hampton Counties, and to the north by Hampton County. A portion of the eastern border follows the Coosawhatchie and Broad Rivers as they flow southeastward into the Atlantic. The mainland primarily consists of nearly level lowlands and low ridges. Elevations range from about sea level to about 105 feet above mean sea level (AMSL) (Mathews et al. 1980:135).

The county is drained by two significant river systems. The Savannah River at the western edge of the county has a significant fresh water discharge. The New River, which forms part of the county's northern boundary, is far smaller. Because of the low topography of the Jasper area, there are many low-gradient interior drains that are present either as extensions of tidal streams and rivers or as flooded bays and swales.

The project corridor, situated northeast of the county seat, Ridgeland, is at the southeastern edge of an area known as Huguenins Neck, a high sand ridge between Bees Creek to the north and a small tributary of Coosawhatchie River to the southeast. The topography in this vicinity slopes to the east, with elevations of about 50 feet AMSL. The lowest portions of the survey corridor go down to about 10 feet AMSL.

Climate

The major climatic controls of the area are latitude, elevation, distance from the ocean, and location with respect to the average tracks of migratory cyclones. The project's latitude of about 32°20'N places it on the edge of the balmy subtropical climate typical of Florida. As a result, there are relatively short, mild winters and long, warm, humid summers. The large amount of nearby warm ocean water surface produces a maritime climate, which tends to moderate both the cold and hot weather. The Appalachian Mountains, about 220 miles to the northwest, block shallow cold air masses from the northwest, moderating them before they reach the Sea Islands (Landers 1970:2-3; Mathews et al. 1980:46).

Maximum daily temperatures in the summer tend to be near or above 90°F and the minimum daily temperatures tend to be about 68°F. The summer water temperatures average 83°F. The abundant supply of warm, moist and

Figure 3. View of pines along the corridor.

relatively unstable air produces frequent scattered showers and thunderstorms in the summer. Winter has average daily maximum and minimum temperatures of 63°F and 38°F respectively. Precipitation is in the form of rain associated with fronts and cyclones; snow is uncommon (Stuck 1980:1-2).

The average yearly precipitation is 49.4 inches, with 34 inches occurring from April through October, the growing season for most low country crops. The coastal areas have approximately 285 frost free days annually, while to the interior -- in the project area -- the growing season drops to about 246 days (Stuck 1980:1; Landers 1970). This mild climate, as Hilliard (1984:13) notes, is largely responsible for the presence of many southern crops, such as cotton and sugar cane.

While the temperatures on the coast are not extreme, the relative humidity is frequently high enough to produce muggy conditions in the summer and dank conditions in the winter. Relative humidity ranges from about 63-89% in the summer to 58-83% in the winter. The highest relative humidity occurs in the morning and as the temperature increases, the humidity tends to decline (Landers 1970:11; Mathews et al. 1980:46).

The coastal area is at a moderately high risk of tropical storms, with 169 hurricanes being documented from 1686 through 1972 (Mathews et al. 1980:56). The last Category 5 hurricane that hit this area was the August 27, 1893 storm, which had winds of 120 miles per hour and a storm surge of 17 to 19.5 feet. Over 1,000 people in South Carolina were reported killed by this storm (Mathews et al. 1980:55). Other notable historic storms have occurred in 1700, 1752, 1804, 1813, and 1885.

Geology and Soils

The coastal region is covered in sands and clays originally derived from the Appalachian Mountains and which are organized into coastal, fluvial, and aeolian deposits. These were transported to the coast during the Quaternary period and were deposited on bedrock of the Mesozoic Era and Tertiary period. These sedimentary bedrock formations are only occasionally exposed on the coast, although they frequently outcrop along the fall line (Mathews et al. 1980:2). The bedrock in the Beaufort area is below a level of 1640 feet (Smith 1933:21).

The Pleistocene sediments are organized into topographically distinct, but lithologically similar terraces parallel to the coast. These terraces have elevations ranging from 215 feet down to sea level. The terraces, representing previous sea floors, were apparently formed at high stands of the fluctuating, though falling, Atlantic Ocean and consist chiefly of sand and clay (Cooke 1936). More recently, research by Colquhoun (1969) has refined the theory of formation processes, suggesting a more complex origin involving both erosional and depositional processes operating during marine transgressions and regression.

The mainland soils are Pleistocene in age and tend to have more distinct horizon development and diversity than the younger soils of the Sea Islands. Sandy to loamy soils predominate in the level to gently sloping mainland areas. The island soils are less diverse and less well developed, frequently lacking a well defined B horizon. Organic matter is low and the soils tend to be acidic. The Holocene deposits typical of barrier islands, and found as a fringe on some sea islands, consist almost entirely of quartz sand, which exhibits little organic matter. Tidal marsh soils are Holocene in age and consist of fine sands, clay and organic matter deposited over older Pleistocene sands. The soils are frequently covered by up to 2 feet of salt water during high tide. These organic soils usually have two distinct layers. The top few inches are subject to aeration as well as leaching and therefore are a dark brown color. The lower levels, however, consist of reduced compounds resulting from decomposition of organic compounds and are black. The pH of these marsh soils is neutral to slightly alkaline (Mathews et al. 1980:39-44).

Figure 4. View of wetland area along the corridor.

Most of this portion of Jasper County is dominated by Bladen-Coosaw-Wahee soils. These are generally poorly drained and somewhat poorly drained soils that have a loamy surface layer and a clayey subsoil, as well as somewhat poorly drained soils that have a thick sandy surface and a loamy subsoil (Stuck 1980).

The survey corridor includes areas with fourteen different soils represented. Only two soils, Echaw loamy fine sands and Blanton fine sands, are moderately well drained, while one soil, Lakeland fine sands, are excessively drained. The remaining soils range from somewhat poorly drained to very poorly drained.

Echaw soils have an Ap horizon of dark grayish brown (10YR4/2) loamy fine sand to a depth of 0.7 foot over a light yellowish brown (10YR6/4) loamy fine sand to 1.3 feet in depth. The Blanton Series have an Ap horizon of gray (10YR5/1) fine sand to a depth of 0.7 foot over a light gray (10YR6/1) fine sand to a depth of 1.3 feet.

The Lakeland Series, has an Ap horizon of dark gray (10YR4/1) fine sand to 0.7 foot in depth over a brownish yellow (10YR6/6) fine sand to a depth of 3.8 feet.

The somewhat poorly drained soils consist of Wahee fine sandy loams, Seewee fine sands, Coosaw loamy fine sands, Ocilla loamy fine sands, and Albany loamy fine sands. Wahee soils have an A horizon of very dark gray (10YR3/1) fine sandy loam to a depth of 0.5 foot over a pale olive (5Y6/3) fine sandy loam to 1.1 foot in depth. The Seewee Series has an Ap horizon of very dark brown (10YR2/2) fine sand to 0.7 foot over a dark grayish brown (10YR4/2) fine sand to 1.2 feet in depth. Coosaw soils have an Ap horizon of dark grayish brown (10YR4/2) loamy fine sand to 0.6 foot over a light brownish gray (2.5Y6/2) loamy fine sand to 2.3 feet in depth. Ocilla soils have an A horizon of dark gray (10YR4/1) loamy fine sand to 0.6 foot in depth over a pale brown (20YR6/3) loamy fine sand to 1.2 feet in depth. The Albany Series has an Ap horizon of very dark gray (10YR3/1) loamy fine sand to 0.6 foot over a light gray (10YR7/2) loamy fine sand to a depth of 2.3 feet.

The poorly drained soils consist of Bladen fine sandy loams, Williman loamy fine sands, and Pelham loamy sand. Bladen soils have an A horizon of very dark gray (10YR3/1) fine sandy loam to 0.4 foot in depth over a light brownish gray (2.5Y6/2) fine sandy loam to 0.7 foot in depth. Williman soils have an A horizon of very dark gray (10YR3/1) loamy fine sand to 0.4 foot over a dark grayish brown (10YR4/2) loamy fine sand to 1.3 feet in depth. The Pelham Series has an A horizon of very dark gray (10YR3/1) loamy sand to 0.5 foot in depth over a light brownish gray (10YR6/2) loamy sand to 2.7 feet in depth.

Three very poorly drained soils were encountered, including Cape Fear loam, Deloss fine sandy loam, and Paxville fine sandy loam. The Cape Fear Series has an A horizon of black (10YR2/1) loam to 0.9 foot in depth over a very dark gray (10YR3/1) clay loam to a depth of 1.3 feet. Deloss soils have an A horizon of black (10YR2/1) fine sandy loam to 1.0 foot in depth over a grayish brown (10YR5/2) fine sandy loam to 1.5 feet in depth. Paxville fine sandy loam has an A horizon of black (10YR2/1) fine sandy loam to 1.3 feet in depth over a very dark gray (10YR3/1) sandy clay loam to 3.2 feet in depth.

Floristics

Jasper County today exhibits five major ecosystems: the coastal marine ecosystem where land has unobstructed access to ocean, the maritime ecosystem which consists of the upland forest area extending inland variable distances, the upland area which accounts for most of the county, the estuarine ecosystem of deep water tidal habitats, and the palustrine ecosystem which consists of essentially fresh water, non-tidal wetlands (Sandifer et al. 1980). All of these areas are today dominated by human action or interaction, including development, agriculture, tree farming, and fire control.

The upland community includes a considerable range of vegetation types: old fields, pine forests, pine-mixed hardwoods, and mixed hardwoods. In the study area we found areas of current or recent agriculture, giving rise to old field communities, as well as both planted pines and also pine-mixed hardwood second growth areas. All are related by the effects of human intervention on the natural ecology of the area.

Originally most of the corridor was likely dominated by mixed hardwoods, particularly live oak and palmetto on the higher soils. These areas would likely have been somewhat similar to maritime forests. On the lower inland soils there were likely areas of what today are called "Florida Scrub" pine flatwoods which often have slight depressions and ridges characterized by a dense woody pocosin understory. There would also have been some limited areas of wetland swamps with tupelo, bay, and ash. There would likely have been some areas of upland mesic hardwoods, also known as "oak-hickory forests" (Braun 1950). These forests contain significant quantities of mockernut hickory as well as pignut hickory, both economically significant to the aboriginal inhabitants. Other areas are more likely to be classified as Braun's (1950:284-289) pine or pine-oak forest communities. Wenger (1968) notes that the presence of loblolly and shortleaf pines is common on coastal plain sites where they are a significant sub-climax aspect of the plan succession toward a hardwood climax. Longleaf pine forests were likewise a common sight (Croker 1979).

Robert Mills, discussing Beaufort District in the early nineteenth century (which at the time included Jasper), stated:

> besides a fine growth of pine, we have the cypress, red cedar, and live oak . . . white oak, red oak, and several other oaks, hickory, plum, palmetto, magnolia, poplar, beech, birch, ash, dogwood, black mulberry, etc. Of fruit trees we have the orange, sweet and sour, peach, nectarine, fig, cherry (Mills 1972 [1826]:377).

He also cautioned, however, that "some parts of the district are beginning already to experience a want of timber, even for common purposes" (Mills 1972 [1826]:383) and suggested that at least 25% of a plantation's acreage should be reserved for woods.

PREHISTORIC AND HISTORIC SYNOPSIS

Previous Research

Jasper County has received a broad range of investigations, with Derting et al. (1991) citing 50 different studies, although no fewer than 11 are related to the study of a single site, 38JA61, and several others involve various studies of the historic town of Purysburg. Most are associated with some type of cultural resource study, so their scope is often limited.

There have been several archaeological studies in the immediate area of the current project, including the substation associated with the transmission line (Trinkley 2002) and a recent examination of Civil War earthworks and fortifications (Trinkley and Fick 2000; see also Clement et al. 2000). Figure 5 shows the closest fortifications and earthworks to the current survey corridor, however all are beyond the 0.5 mile APE.

Jasper County had a comprehensive architectural survey conducted in 1996 (Harvey and Poplin 1996). That study identified one architectural site within the 0.5 mile APE, 109-0293. This structure has been determined not eligible for inclusion on the National Register of Historic Places. Moreover, the structure cannot be seen from the transmission corridor so there will be no visual intrusion.

Prehistoric Overview

The Paleoindian period, lasting from 12,000 to perhaps 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1968). The Paleoindian occupation, while widespread, does not appear to have been intensive. Points usually associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

Several Paleoindian points have been found in Jasper County, with the earliest reported find perhaps being the point identified by Waring (Williams 1968:241) from a clay knoll overlooking the Coosawhatchie. Additional points continue to be documented from the area, although the density appears fairly low (Anderson et al. 1992). The pattern of artifacts found along major river drainages has been interpreted by Michie to support the concept of an economy "oriented towards the exploitation of now extinct megafauna" (Michie 1977:124).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 1000 B.C., does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the Calhoun County area. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts.

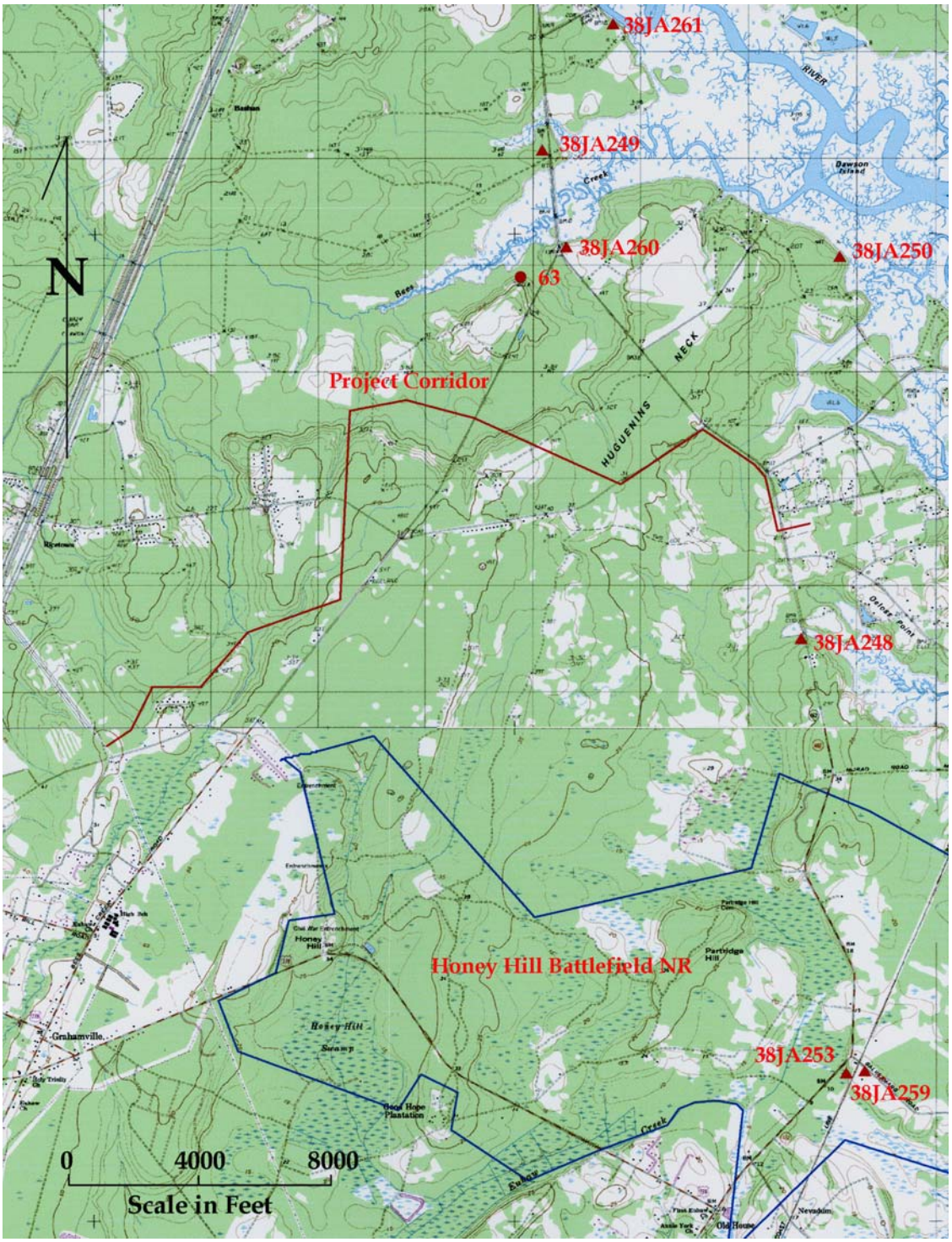

Figure 5. Survey corridor shown with Civil War fortifications and earthworks. Triangles represent known S.C. Institute of Archaeology sites, circles represent unlocated sites in their approximate area, and the blue line is the Honey Hill/Boyd's Neck Battlefield National Register site (basemap is USGS Coosawhatchie and Ridgeland 7.5').

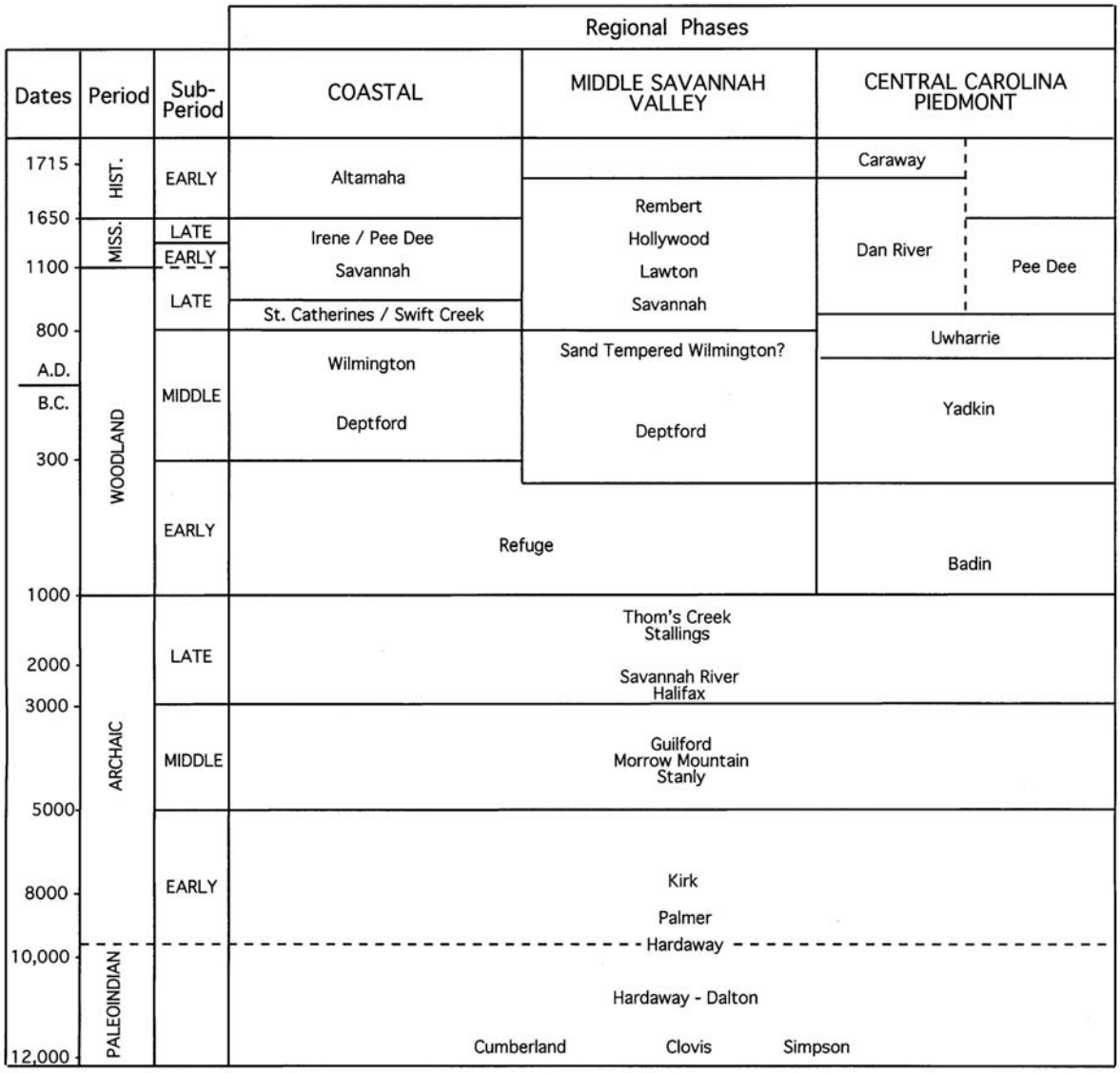

Figure 6. Generalized cultural sequence for South Carolina.

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast, about 1000 B.C. in the Upper Coastal Plain, and much later in the Carolina Piedmont, perhaps 500 B.C. It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2000 to 500 B.C. was a period of tremendous change.

The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups

continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest coastal phases are named the Savannah and Irene (Known as Pee Dee further inland) (A.D. 1200 to 1550).

Waddell (1980) places the study area in the vicinity of the Hoya Indians, which he documents in Spanish accounts as early as 1562 and as late as 1604. There is, however, relatively little information concerning this group, although it may be reasonable to associate them with the larger Guale group (Thomas et al. 1978). The Hoya, however, managed to escape the attention of both Mooney (1894) and Swanton (1952).

Regardless, the 1715 Yemassee War significantly reduced the numbers of the smaller coastal groups and destabilized their society. It may be that the Hoya were eclipsed by groups such as the Escamacu, often described as the Port Royal or St. Helena Indians and, in 1715, recognize as "about 100 free Indians of ye small Nations among us that never revolted" (Hassell quoted in Waddell 1980:198). By the end of the first third of the eighteenth century the few remaining were known as "settlement Indians" and the last mention of even this group came in 1743.

Historic Overview

Jasper County was not created until 1912, so the area has gone through a variety of political transitions. Initially administered through Charleston, by 1682 legal proceedings were likely handled by either nearby Colleton County and later Granville, although most deeds and other records continued to be filed in Charleston. By 1767 it was largely encompassed in St. Peter's Parish, along with portions in St. Luke's and Prince William's. When South Carolina was divided into circuit court districts in 1769, what is today Jasper fell into Beaufort District. In 1878 portions were removed and associated with Hampton County. Given all of these changes Harvey and Poplin (1996:4) suggest that continuity in the region derives largely from the hamlets and other communities.

Settlement in the area grew slowly, so that by 1700 there were only about 5,000 white settlers and enslaved African Americans in the general area. The region's economy was focused on naval stores, trade with the Native American groups, and cattle ranching. Harvey and Poplin (1996:12) suggest that rice cultivation in the Jasper area didn't begin in earnest until the mid to late eighteenth century, supplemented by indigo.

Purysburg, the principal town in Jasper County, was founded in the 1730s as a settlement of poor Swiss Protestants. While it was a strong and cohesive community, it does not appear to have been particularly successful. It served as a stopping point for coaches traveling between Charleston and Savannah, but there was limited commercial activity. The location provided poor navigation and the low area was unhealthy. Nevertheless, the village remained until the mid-nineteenth century. The ferry associated with the crossing remained until driven out of business by the Rochester ferry, closer to Savannah. This crossing was later known as the Union Causeway or Screven's Ferry (Harvey and Poplin 1996:15).

Other centers did not materialize until after the American Revolution, at which time the summer planters' villages of Grahamville and Hardeeville were created. Coosawhatchie developed at the location where stages crossed the Coosawhatchie River.

The Beaufort area saw many clashes between Loyalists and those supporting the American Revolution, and the area was occupied by British forces for several years. The more interior portions of Jasper County, however, seem to have seen little of the revolution. In fact, Lipscomb (1991:4) recounts only one skirmish in Jasper County, at Coosawhatchie on May 3, 1779.

With the collapse of indigo after the Revolution and the increase in enslaved blacks, cotton quickly increased in importance, although rice was still an important crop of the planter elite along the Savannah and a few other areas especially adapted to its cultivation.

By 1790 Beaufort District (which included what are today Beaufort, Hampton, and Jasper Counties) had a population of 18, 753. African Americans made up nearly 76% of this population. The region's history is dominated by the large planters -- by 1860 nearly 12,000 acres of prime swamp and high ground were controlled by just 18 plantations. Yet there was also a strong yeoman presence in the district (see McCurry 1995). Mills' *Atlas* of 1825 reveals no settlements in the project area (Figure 7). One settlement, labeled Clevelands, is located nearby, but no evidence of the settlement was found in the corridor. Situated fairly far inland, the study corridor was likely held in woods or perhaps was cultivated in cotton or subsistence crops.

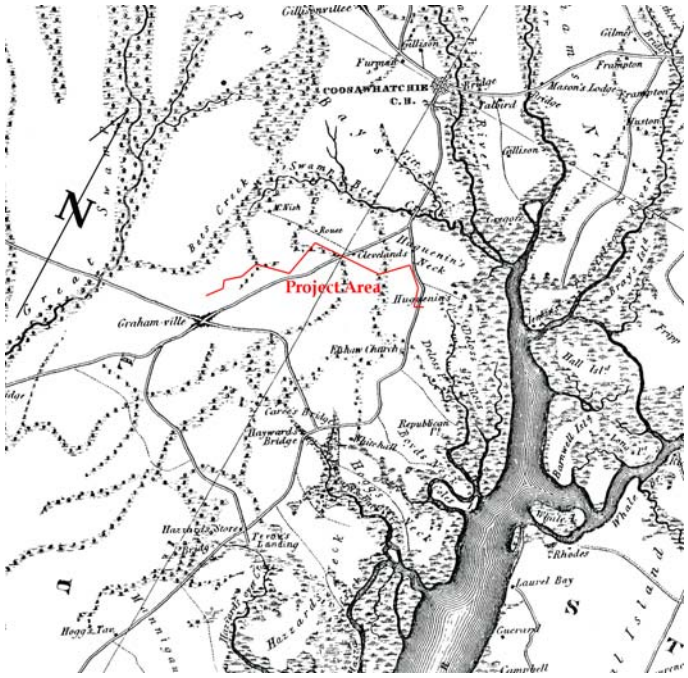

Figure 7. Portion of Mills' *Atlas* showing the project area.

While the antebellum was a period dominated by agriculture (see Harvey and Poplin 1996:22), railroads were beginning to make their appearance in the 1830s. By the 1850s work was underway on the Charleston and Savannah Railway -- a crucial link during the Civil War. Yet even at this early date the rail line began to cast the region's history. The county seat, Grahamville, saw the railroad as noisy, dirty, and a threat to their peaceful summer village, refusing to accommodate a depot. Instead, the stop was placed at Gopher Hill and this small community eventually became Ridgeland, and the county seat of Jasper, while Grahamville gradually disappeared (Harvey and Poplin 1996:28).

The Civil War was focused on the rail line linking Charleston and Savannah, with the Confederate's attempting to secure that connection through a variety of earthworks. While the sea islands were abandoned to Union forces, the South held onto the rail system with tenacity throughout the war (see Trinkley and Fick 2000 for additional information on the region's Civil War fortifications). There were several major battles in the vicinity, including both Coosawhatchie and Honey Hill, to the south of the project area (Harvey and Poplin 1996:29). While the railroad was held, the region suffered extraordinary losses at the end of the war when Sherman's forces marched through St. Peter's and St. Luke's parishes.

There are at least 11 Union reports of the "Engagement at Honey Hill" (Official Records of the War of the Rebellion, vol. 92, pg. 76 ff.), as well as a Confederate account (Official Records of the

War of the Rebellion, vol. 92, pg. 413 ff.). There is also a brief discussion in Ryan (1996) and the battle has been carefully detailed by Clements et al. (2000).

In brief, US Major General John G. Foster, the commander of the Department of the South, ordered an expedition from Hilton Head to cut the Charleston & Savannah Railroad in an effort to prevent the Confederates from opposing Sherman's march through the area. US Major General John P. Hatch set out with 5,500 men on November 28 and steamed up the Broad River, off loading at Boyd's Neck. From there his troops marched inland toward Grahamville on November 30. At Honey Hill, three miles from the railroad depot, they encountered 2,000 South Carolina and Georgia Confederate troops under CS Major General Gustavus W. Smith. Hatch's troops, including the 54th Massachusetts, made three determined frontal attacks against the entrenched Confederate positions and were driven back with heavy losses. They failed to make any significant dent in the railroad and eventually retired to their transports. Afterwards, the battle was described as a "reconnaissance in force," although 746 US troops were casualties, compared to only 50 Confederates.

After the Civil War, with slaves no longer providing easy labor for the cotton plantations, the economy was stagnant and a slow period of rebuilding began. The remaining decades of the nineteenth century were focused on the dual goals of restoring the economy and ensuring that African Americans remained in a state as closely as possible resembling bondage.

The hiring of freedmen began immediately, with variable results. The Freedmen's Bureau attempted to establish a system of wage labor, but the effort was largely tempered by the enactment of the Black Codes by the South Carolina Legislature in September 1865. These Codes allowed nominal freedom, while establishing a new kind of slavery, severely restricting the rights and freedoms of the black majority. Added to the Codes were oppressive contracts that reinforced the power of the plantation owner and degraded the freedom of the Blacks. Many white planters formed "Democratic Clubs," designed to counter the "radical" influence. Members of these clubs resolved not to hire "radicals," or blacks associated with radical politics.

Table 1.
Systems of Tenure

	Share-Cropping	Share Renting	Cash Renting
Landlord furnishes:	land housing fuel tools work stock seed half of fertilizer feed for stock	land housing fuel 1/2 or 1/3 fertilizer	land housing fuel
Tenant furnishes:	labor half of fertilizer	labor work stock feed for stock tools seed 3/4 or 2/3 fertilizer	labor work stock feed for stock tools seed fertilizer
Landlord receives:	1/2 of crop	1/4 or 1/3 of crop	fixed amount in cash or lint cotton
Tenant receives:	1/2 of crop	3/4 or 2/3 of crop	entire crop less fixed amount

While cash labor was initially used, gradually owners turned away from wage labor contracts, at least partially because of the scarcity of money, but also because of the prevailing belief among whites that blacks were so lazy that with

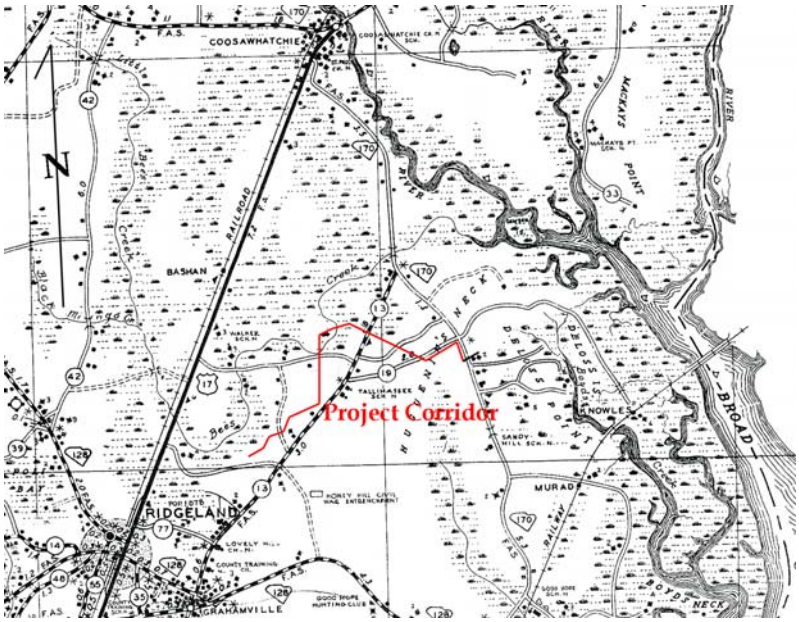

Figure 8. Portion of the 1937 *General Highway and Transportation Map of Jasper County* showing the project area.

money in their pockets they would not work. In its place two kinds of tenancy -- sharecropping and renting -- developed. While very different, both succeeded in making land ownership very difficult, if not impossible, for the vast majority of Blacks.

Sharecropping required the tenant to pay his landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping the tenant supplied the labor and one-half of the fertilizer, the landlord supplied everything else -- land, house, tools, work animals, animal feed, wood for fuel, and the other half of the needed fertilizer. In return the landlord received half of the crop at harvest. This system became known as "working on halves," and the tenants as "half hands," or "half tenants."

In share renting, the landlord supplied the land, housing, and either one-quarter or one-third of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer. At harvest the crop was divided in proportion to the amount of fertilizer that each party supplied. A number of variations on this occurred, one of the most common being "third and fourth," where the landlord received one-fourth of the cotton crop and one-third of all other crops. In cash renting the landlord provided the land and housing, with the renter providing everything else and paying a fixed per-acre rent in cash.

While there is no question concerning the importance of tenancy in Jasper County, Harvey and Poplin note that the dominant power in the region was timber. By the last several decades of the nineteenth century large timber companies began to acquire large tracts in Jasper County and the yield of timber from southern forests doubled between 1880 and 1890. During the first three decades of the twentieth century the South's contribution of timber increased from one-third to one-half of the national market (Harvey and Poplin 1996:36). Companies such as Argent and Ritter expanded rail lines, allowing easier extraction and shipment of the timber from the Jasper forests.

Northern businesses lead a "second northern invasion" acquiring not only timber lands, but also resorts for the wealthy. Drawn by the myth of the "Old South," they established "plantations" for hunting and entertaining -- often serving to maintain original plantation tracts. Harvey and Poplin (1996:41) also note that many of these plantations were also investments and served as working farms.

By the time Jasper was created in 1912, Ridgeland had grown from Gopher Hill, but its continued growth as the new county seat was exceedingly slow. The town expanded parallel to the railroad tracts, with the depot in the center of

the community. Hardeeville, nearly destroyed by the Civil War, reemerged in the twentieth century as the headquarters for Argent Lumber.

The 1937 *General Highway and Transportation Map of Jasper County* reveals that what is today SC 462 was at that time SC 170 (Figure 8). Although there were a variety of farm and tenant settlements on the main roads, none appear to have been located on the project corridor. The architectural survey also failed to identify any of these structures.

METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along the center line of the corridor which has a 75-foot right-of-way.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially from the southern portion of the corridor, heading northeast. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications.

The GPS positions were taken with a Garmin GPS 12XL rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. This was a vital concern for the study area.

GPS accuracy is generally affected by a number of sources of potential error, including errors with satellite clocks, multipathing, and selective availability. Satellite clock errors can occur when the satellites' clock is off by as little as a millisecond, or when a slightly askew orbit

Figure 9. Existing Bees Creek Substation at northeast portion of corridor.

results in a distance error. Multipathing occurs when the signal bounces off trees, chain-link fences, or bodies of water. Multipathing was probably not a significant source of error for this study since the site area was clear and our reading was taken in the center of the site. The source of most extreme GPS errors is selective availability (SA), the deliberate mistiming of satellite signals by the Department of Defense. This degradation results in horizontal errors of up to 100 m 95% of the time, although the error may be as much as 300 m. Nevertheless, selective availability has been turned off by the DOD. We have previously determined the 3D[1] and DGPS readings with the Garmin 12XL were identical. Therefore, we relied on 3D navigation mode, with expected potential horizontal errors of 6 m or less.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950. Typical of such projects, this survey would record only those which has retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource we would complete a Statewide Survey Site Form and at least two representative photographs would be taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.

[1]A basic requirement for GPS position accuracy is having a lock on at least four satellites, which places the receiver in 3D mode. This is critical B as an example, positions calculated with less than four satellites can have horizontal errors in excess of a mile, or over 1,600 m.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be

Figure 10. Shovel testing along the corridor.

likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;

- identification of the historic context applicable to the site, providing a framework for the evaluative process;

- identification of the important research questions the site might be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

For architectural sites the evaluative process was somewhat different. Given the relatively limited architectural data available for most of the properties, we focus on evaluating these sites using National Register Criterion C, looking at the site's "distinctive characteristics." Key to this concept is the issue of integrity. This means that the property needs to have retained, essentially intact, its physical identity from the historic period.

Particular attention would be given to the integrity of design, workmanship, and materials. Design includes the organization of space, proportion, scale, technology, ornamentation, and materials. As *National Register Bulletin* 36 observes, "Recognizability of a property, or the ability of a property to convey its significance, depends

largely upon the degree to which the design of the property is intact" (Townsend et al. 1993:18). Workmanship is evidence of the artisan's labor and skill and can apply to either the entire property or to specific features of the property. Finally, materials -- the physical items used on and in the property -- are "of paramount importance under Criterion C" (Townsend et al. 1993:19). Integrity here is reflected by maintenance of the original material and avoidance of replacement materials.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site forms for the identified archaeological sites have been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes and photographic materials have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of prehistoric materials were defined by such authors as Yohe (1996), Blanton et al. (1986), and Oliver et al. (1986).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey, one site, 38JA326, a prehistoric lithic and pottery scatter, was identified (Figure 11). The site is recommended not eligible for the National Register for its limited ability to address significant research questions.

The architectural survey failed to identify any further structures that would be potentially eligible for the National Register beyond those already identified (Harvey and Poplin 1996). The identified structure, 109-0293, was relocated and still recommended not eligible for the National Register.

Archaeological Resources

38JA326

Site 38JA326 is a subsurface scatter of prehistoric artifacts located on a ridge side slope at an elevation of 40 feet AMSL (Figure 12). Vegetation in the area consists of mixed pines and hardwoods, however the site was found in a fallow field. A UTM coordinate for the site is 507900E 3598428N (NAD27 datum).

Shovel tests were completed on the corridor at 100-foot intervals with the shovel test 100 feet northwest of Station 210+79 (200R150) positive. Additional shovel testing was performed at 50-foot intervals along the corridor and beyond the 75-foot right-of-way until two consecutive negative tests were encountered.

A total of 25 shovel tests were excavated with three positive (12%). In addition, two 2 x 2 foot test units were excavated, only one of which

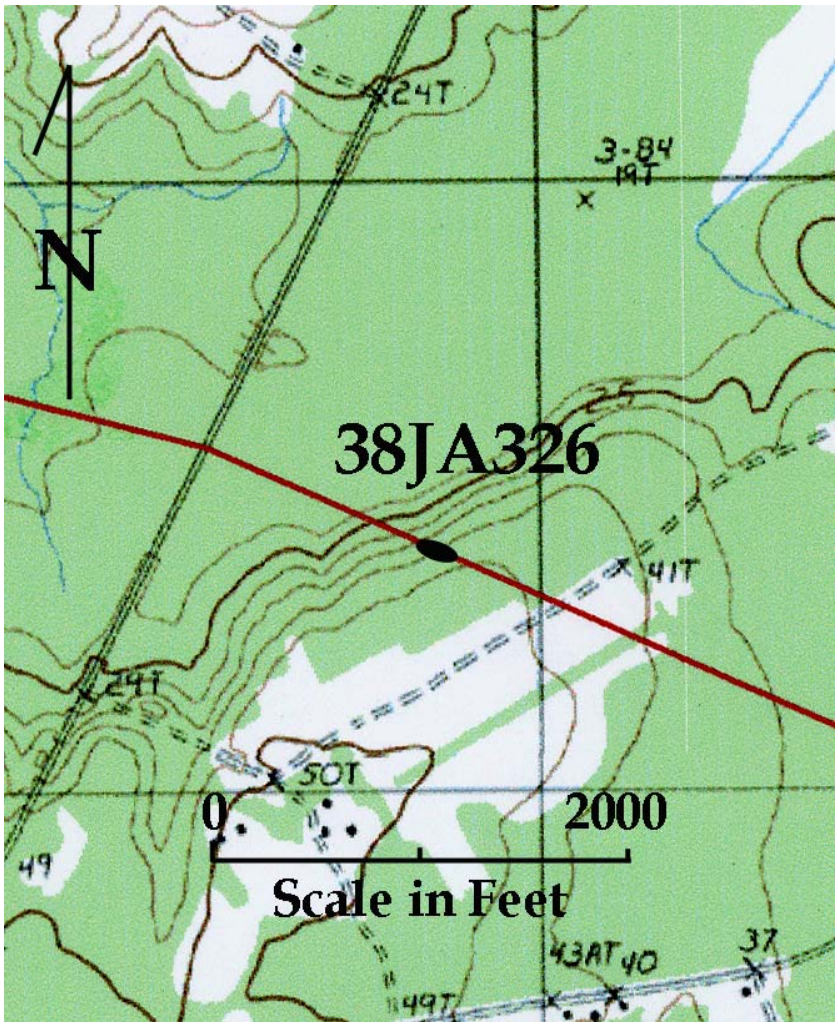

Figure 11. Portion of the corridor showing 38JA326 (basemap is USGS Coosawhatchie 7.5').

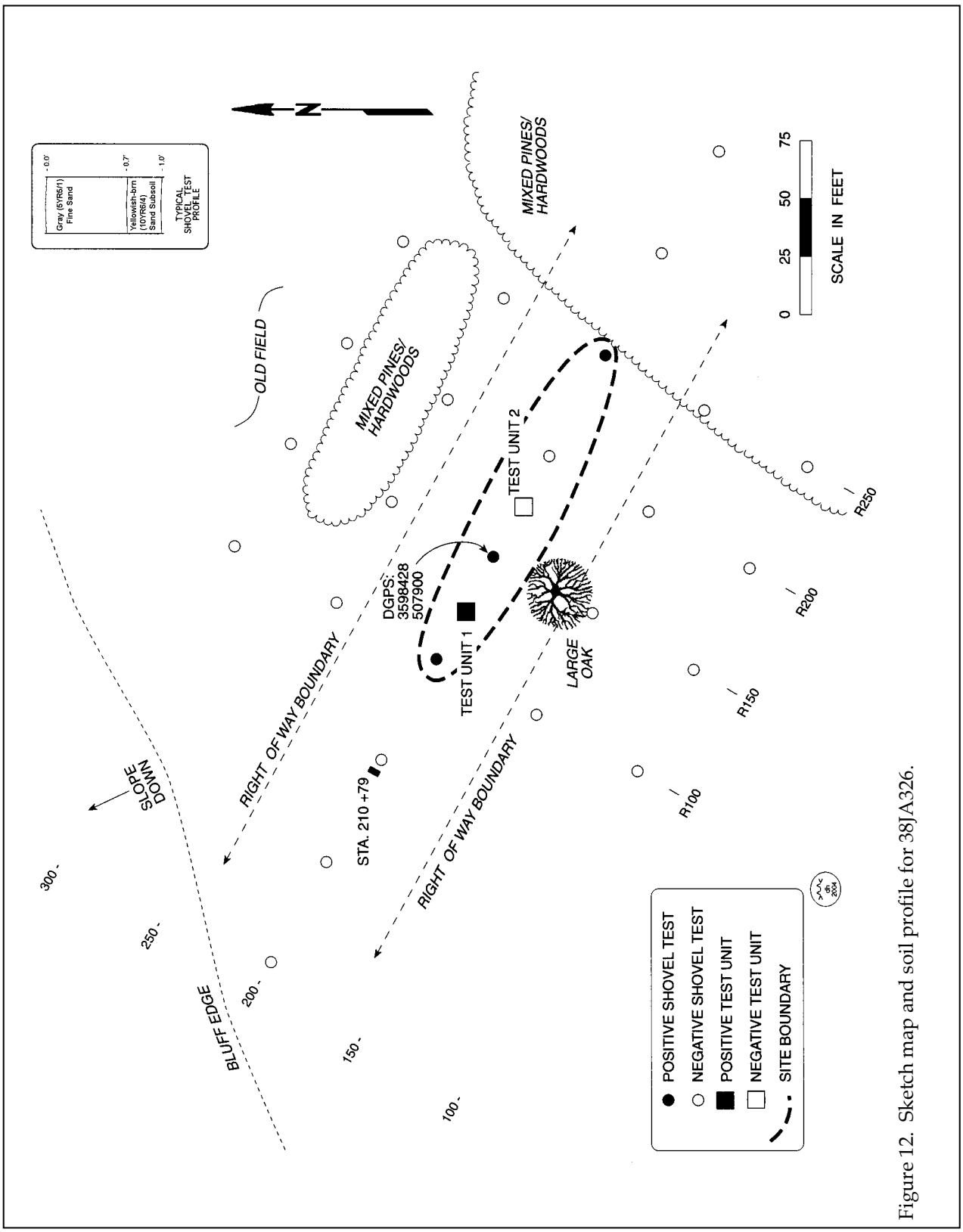

Figure 12. Sketch map and soil profile for 38JA326.

Table 2.
Artifacts from 38JA326

	200R100	200R150	200R250	Test Unit 1
Sherd, small	1	1	2	1
Chert		1		

was positive, producing one sherd in the top 0.7 foot of soil. Shovel test profiles produced soils resembling of Blanton fine sands, one of only two small areas along the corridor with moderately well-drained soils. These soils generally have an Ap horizon of gray (10YR5/1) fine sand to a depth of 0.7 foot over a light gray (10YR6/1) fine sand to a depth of 1.3 feet (Stuck 1980). Below this is a very pale brown (10YR7/3) fine sand to 3.8 feet and then a light yellowish brown (10YR6/4) fine sandy loam to a depth of 4.3 feet. However, the soil profile at the site produced a gray (10YR5/1) fine sand to a depth of 0.7 foot over a light yellowish brown (10YR6/4) fine sandy loam to 1.0 foot in depth. Erosion and redeposition likely account for the lack of light gray and very pale brown strata of soil. The site is on a ridge side slope that may have accelerated erosion.

The site area, measuring approximately 150 by 50 feet, includes five small sherds and one piece of chert (Table 2). This site exhibits sparse data sets – lacking diagnostic remains (the sherds are too small to provide any temporal data other than the broad Woodland Period time frame), features, or other remains necessary to address significant research questions.

The artifacts were found in the top 0.7 foot of soil, which being located in an old field, would have damaged the integrity of the site through previous cultivation activities. Because of these activities, it is unlikely that any intact features will be found.

Site 38JA326 is recommended not eligible for the National Register of Historic Places for its inability to address significant research questions and its lack of integrity. No additional management activity is recommended pending review by the State Historic Preservation Office.

Historic and Architectural Resources

Figure 13. View of site area in a fallow field.

As previously discussed, there are no National Register buildings, districts, structures, sites, or objects in the study corridor or the 0.5 mile APE. There is, however, one previously recorded architectural resource (109-0293) found within the 0.5 mile APE.

Site (109-0293) is a ca. 1900 house with a lateral gable roof. The house was recommended not eligible in 1996

(Harvey and Poplin 1996). In 2003, the structure was leaning on trees and would have fallen, if not for the surrounding forest keeping the structure upright (Trinkley and Southerland 2003). As for the current survey, the structure cannot be seen from the road due to the thick vegetation, however, given the previous assessments of the structure in very poor condition, it is still recommended not eligible for the National Register.

No additional properties were encountered which may be eligible for the National Register of Historic Places.

While a number of Civil War sites have been documented from this area (and the Honey Hill site has recently been placed on the National Register), none are known to be within the 0.5 mile APE and none were encountered on the survey corridor.

CONCLUSIONS

This study involved the examination of a 6-mile corridor for the Bees Creek Transmission Line. The project area is located in the eastern portion of Jasper County. This work, conducted for Central Electric Power Cooperative, examined archaeological sites and cultural resources found on the proposed project corridor and is intended to assist the company in complying with their historic preservation responsibilities.

As a result of this investigation, 38JA326, was uncovered. The site is a prehistoric lithic and pottery scatter that is recommended not eligible for the National Register for its inability to address significant research questions and lack of integrity.

A survey of historic sites was conducted within a 0.5 mile APE. No structures were found that warrant a National Register of Historic Places nomination. The previously identified structure in the APE, 109-0293, is still recommended not eligible. The structure cannot be seen from the project corridor and will not be affected. While a number of Civil War sites have been documented for this area, and the Honey Hill site (encompassing 4,000 acres) has been placed on the National Register of Historic Places, none are known to be within the 0.5 mile APE and none were encountered on the survey corridor. The proposed transmission line, given the distance to the Honey Hill site, is not anticipated to cause any visual intrusion.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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